

XXXIII.—Description of new Species of Crocidura from Africa. By G. E. DOBSON, M.A., F.R.S.

THE following descriptions of three new species of the genus *Crocidura* are derived from examinations of specimens preserved in the collections of the British Museum, and of the Zoological Museum of the Imperial Academy of Sciences at St. Petersburg. All belong to the section of the genus with twenty-eight teeth. The dentition of each species will be found figured in Part III. of my Monograph of the Insectivora, of which I am about to publish the plates.

Crocidura nana.

Scarcely if at all larger than *Crocidura etrusca*, and therefore the smallest species of this section of the genus as yet discovered. Fur above dark slate-brown, with a faint greyish tinge; beneath white, the colour of the upper separated from that of the lower surface by a sharp line. The feet are clothed with short shining whitish hairs; the tail with short brownish hairs, with many long fine dark brown hairs projecting almost to the tip. Ears moderate, clothed with short dark brown hairs.

The anterior maxillary tooth is shorter than the third incisor in vertical extent, but exceeds it in cross section at the base, and the postero-internal part of its base is in contact with the premolar. (See Monograph of the Insectivora, part iii. fasc. i. pl. xxviii.)* Length, head and body, about 40 millim., tail 30, pes $8\frac{1}{2}$, distance from tip of first upper incisor to apex of principal cusp of last premolar $3\frac{1}{2}$.

Hab. East Africa (Dollo, Somali Land).

Type, the skin of an adult individual, collected by Messrs. F. L. and W. D. James, preserved in the British Museum (Nat. Hist.).

As I am very unwilling to describe new species from skins, I waited for a long time, hoping that a specimen preserved in alcohol might be procured; but my expectations not having been realized I resolved to leave this very interesting species no longer undescribed, particularly as the characters afforded are ample for its recognition.

Crocidura Strauchii.

Slightly larger than *C. aranea*, but with a much longer tail and larger ears. The tail is moderately thick, and clothed with short fur, which nearly conceals all the scales,

* This part of my work will be published in a few weeks.

and between which the long fine hairs project at intervals to within a short distance of the extremity; the muzzle, chin, manus, and pes are well covered with short fur like the under fur on the tail. The ears are apparently naked, being clothed only with very short almost invisible hairs. The fur of the body is short throughout, on the head, back, and upper surface of the tail cinnamon-brown, with bright yellowish-brown extremities, beneath similar, with greyish tips.

The teeth (see Monograph of the Insectivora, part iii. fasc. i. pl. xxvii. figs. 2 & 2 a) somewhat resemble those of *C. aranea*, but, besides being altogether larger, they may be at once distinguished, not only from those of that species, but also from those of every other species of this section of the genus, by the form of the anterior maxillary tooth, the base of which develops a horizontal postero-internal process, so that the posterior margin of the base of the tooth is deeply concave.

In the single specimen, an adult male, there is a well-marked lateral gland in the usual position.

Length, head and body, 85 millim., tail 55, eye to tip of nostril 12, ear 10, elbow to end of middle digit (without claw) $18\frac{1}{2}$, manus 8, pes 12, tibia 13, distance of tip of first upper incisor from apex of principal cusp of the last premolar 5.

Hab. N.E. Africa (Soudan).

Type, an adult male No. 1988, preserved in alcohol in the collection of the Zoological Museum at St. Petersburg.

This species somewhat resembles *C. flavescens* in the colour of the fur, and in the length of the body and tail, but it may be at once distinguished by its smaller size, much shorter pes, forearm, and tibia, by the presence of a well-developed lateral gland, and by the deep concavity in the posterior margin of the anterior maxillary tooth.

I have much pleasure in connecting with this interesting species the name of Dr. Strauch, Director of the Zoological Museum of the Imperial Academy of Sciences at St. Petersburg.

Crocidura macrodon.

In colour and in distribution of the fur like *C. Strauchi*, but with much larger feet, a shorter tail, a much longer muzzle, and altogether larger teeth. The muzzle is remarkably long and pointed, the ears moderate, clothed only with very short hairs, and a few longer ones springing from the margin of the internal folds; the vibrissæ on the sides of the muzzle are fine and very long, the longest extending back-

wards behind the ears. The fur of the body is short; the tail is clothed with coarse short fur from which long hairs arise; the feet are covered with short hairs of which the longest are at the bases of the claws, which they nearly equal in length.

Both the upper and lower anterior incisors are remarkably long (see Monograph of the Insectivora, pt. iii. fasc. i. pl. xxvii. fig. 3), the upper anterior incisor has a short basal cusp which does not extend even below the cingulum of the second incisor. Viewed laterally the third incisor is very little smaller than the anterior maxillary tooth; but seen from beneath the latter much exceeds the former in cross section at the base, and its cusp very slightly exceeds the anterior basal cusp of the premolar; its base is not emarginate posteriorly as in *C. Strauchii*. The anterior lower incisor has a shallow notch for the posterior basal cusp of the anterior upper incisor.

Length, head and body, 68 millim., tail 46, eye from tip of nostril 14, length of ear $8\frac{1}{2}$, elbow to end of middle digit 19, manus $8\frac{1}{2}$, pes 14, tibia 14, distance of the tip of first incisor from apex of principal cusp of the last premolar $5\frac{1}{2}$.

Type, preserved in alcohol, No. 1968, in the collection of the Zoological Museum at St. Petersburg.

XXXIV.—*On the Constitution of the Body in the Blattidæ.*

By E. HAASE*.

ANY extension of our knowledge of the structure of the Cockroaches, however small, is of special interest, because two characteristic representatives of this family of Orthoptera, the House-cockroach (*Phyllodromia germanica*, Fab.) and the Kitchen-cockroach (*Periplaneta orientalis*, Linn.), from their occurrence in the dwellings of man and their adaptation to this protective habitat, are to be obtained in abundance throughout the year, and further because, on account of their considerable size, they have always served as a chosen material for an introduction to the anatomy of insects.

But, moreover, the oldest remains of fossil insects known to us, the Silurian *Palaoblattina Durvillei*, Brongn. †, and

* Translated from the 'Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin,' Jahrg. 1889, pp. 128-136.

† F. Brauer sees in the preserved remains of the wing indications of a probably synthetic Orthopteron approaching the Mole-Cricket (Ann. k. k. Naturhist. Hofm. Wien, i. 1881, p. 1).